

AVIATION MAINTENANCE I

COURSE DESCRIPTION

Aviation Maintenance I offers the first part of the general aviation maintenance content common to Airframe and Powerplant Maintenance Technology. The course prepares students for *Aviation Maintenance II* and subsequent gainful employment or further study leading to Federal Aviation Administration (FAA) certification in Airframe and/or Powerplant certification. Students are introduced to career opportunities and paths within the Aviation Maintenance Industry. Course content includes math and basic physics as applied to aviation, basic aerodynamics, aircraft structures, sheet metal, aircraft wood and fabric, avionics, assembly and rigging of rotary wing aircraft, aircraft inspections and all Federal Aviation Administration (FAA) Regulations that govern technicians. Federal Aviation Administration (FAA) Regulations require 380 contact hours in Maintenance toward Airframe or Powerplant certification.

Pre-requisites: None
Algebra I or Math for Technology II; Physical Science or Principles of Technology I (may be concurrent)

Recommended Credits: 2

Recommended Grade Levels: 11th, 12th

Note 1: Instructors of Aviation Maintenance must be certified as an Airframe and Powerplant Technician by the Federal Aviation Administration.

Note 2: The following defines terms used in the Performance Standards and describes the level of proficiency at which items under each subject in each curriculum must be taught, as outlined.

(A) Definitions.

- (1) “inspect” means to examine by sight and touch.
- (2) “check” means to verify proper operations.
- (3) “troubleshoot” means to analyze and identify malfunctions.
- (4) “service” means to perform functions that assure continued operation.
- (5) “repair” means to correct a defective condition. Repair of an airframe or powerplant system includes component replacement and adjustment, but not component repair.
- (6) “overhaul” means to disassemble, inspect, repair as necessary, and check.

(B) Teaching levels.

(1) Level 1 requires:

- (i) knowledge of general principles, but no practical application
- (ii) no development of manipulative skill
- (iii) instruction by lecture, demonstration, and discussion

(2) Level 2 requires:

- (i) knowledge of general principles, and limited practical application
- (ii) development of sufficient manipulative skill to perform basic operations
- (iii) instruction by lecture, demonstration, discussion, and limited practical application

(3) Level 3 requires:

- (i) knowledge of general principles, and performance of a high degree of practical application
- (ii) development of sufficient manipulative skill to simulate return to service
- (iii) instruction by lecture, demonstration, discussion, and a high degree of practical application

(C) Teaching materials and equipment. The curriculum may be presented utilizing currently accepted educational materials and equipment, including, but not limited to: calculators, computers, and audio-visual equipment.

AVIATION MAINTENANCE I STANDARDS

- 1.0 Students will demonstrate leadership, citizenship, and teamwork skills required for success in the school, community, and workplace.
- 2.0 Students will trace the growth and development of the aviation maintenance technology industry to gain insight regarding past, current, and future trends of the industry.
- 3.0 Students will evaluate career opportunities and career paths within the aviation maintenance technology industry.
- 4.0 Students will apply math and basic physics skills to aviation maintenance technology.
- 5.0 Students will safely evaluate basic electrical/electronic circuits.
- 6.0 Students will interpret and use drawings symbols, schematic diagrams, blue prints and sketch basic repairs for aviation structures.
- 7.0 Student will weigh aircraft and work with fluid lines and fittings.
- 8.0 Students will analyze aircraft materials use and care and ground operations procedures.
- 9.0 Students will analyze Federal Aviation Regulations that govern certified Aircraft Technicians and use required maintenance forms, records, and relevant publications.
- 10.0 Students will demonstrate communication skills required in the aviation maintenance industry.
- 11.0 Students will demonstrate interpersonal and employability skills required in the aviation maintenance industry.
- 12.0 Students will demonstrate automotive technology safety practices, including Occupational Safety and Health Administration (OSHA) and Environmental Protection Agency (EPA) requirements for an aviation maintenance facility.

AVIATION MAINTENANCE I

STANDARD 1.0

Students will demonstrate leadership, citizenship, and teamwork skills required for success in the school, community, and workplace.

LEARNING EXPECTATIONS

The student will:

- 1.1 Cultivate positive leadership skills.
- 1.2 Participate in Skill USA-VICA as an integral part of classroom instruction.
- 1.3 Assess situations and apply the decision-making process within the school, community, and workplace.
- 1.4 Demonstrate the ability to work cooperatively with others.

PERFORMANCE STANDARDS: EVIDENCE STANDARD IS MET

The student:

- 1.1 Demonstrates character and leadership skills using creative and critical thinking.
- 1.2.A Relates the creed, purposes, motto, and emblems of Skills USA-VICA to personal and personal and professional development.
- 1.2.B Plans and conducts meeting and other business according to accepted rules of parliamentary procedure.
- 1.3.A Makes decisions and assumes responsibilities.
- 1.3.B Analyzes a situation and uses the Professional Development Program of Skills USA-VICA to resolve it.
- 1.4.A Organizes and participates on committees.
- 1.4.B Cooperates with peers to select a philanthropy and organize a community service project.

SAMPLE PERFORMANCE TASKS

- Create a leadership inventory and use it to conduct a personal assessment.
- Participate in various Skills USA-VICA programs and /or competitive events.
- Use a formal planning or decision making process to select, implement, and evaluate an activity within the school, community, and/or workplace.
- Develop an annual program of work.
- Prepare a meeting agenda.

INTEGRATION LINKAGES

SkillsUSA-VICA, *Professional Development Program*, SkillsUSA-VICA, Communications and Writing Skills, Teambuilding Skills, Research, Language Arts, Sociology, Psychology, Math, Math for Technology, Applied Communications, Social Studies, Problem Solving, Interpersonal Skills, Employability Skills, Critical-Thinking Skills, SCANS (Secretary's Commission on Achieving Necessary Skills), PAMA (Professional Aviation Maintenance Association), ATEC (Aviation Technical Education Council), Tennessee Aeronautics Division.

AVIATION MAINTENANCE I

STANDARD 2.0

Student will trace the growth and development of the aviation industry to gain insight regarding past, current, and future trends of the industry.

LEARNING EXPECTATIONS

The student will:

- 2.1 Analyze the evolution of the aviation industry.
- 2.2 Examine the roles of people in history who helped to shape the aviation industry.

PERFORMANCE STANDARDS: EVIDENCE STANDARD IS MET

The student:

- 2.1.A Develops a research project depicting the history of the aviation industry.
- 2.1.B Categorizes changes in the aviation industry and analyzes the effects of changes.
- 2.2.A Profiles individual success stories within different divisions of the industry.
- 2.2.B Correlates these success stories with personal economic impact.

SAMPLE PERFORMANCE TASKS

- Research industry history, trends using the Internet, media research interviews, and other research sources.
- Conduct interviews and gather data from individuals concerning the growth and development of the aviation industry.

INTEGRATION LINKAGES

Language Arts, Social Studies and Government, History, Computer Skills, Research and Writing Skills, Communications Skills, SCANS (Secretary's Commission on Achieving Necessary Skills), PAMA (Professional Aviation Maintenance Association), ATEC (Aviation Technical Education Council), Tennessee Aeronautics Division.

AVIATION MAINTENANCE I

STANDARD 3.0

Students will evaluate career opportunities and career paths within the aviation industry.

LEARNING EXPECTATIONS

The student will:

- 3.1 Explore the titles, roles, and functions of individuals engaged in aviation careers, including opportunities for advancement.
- 3.2 Investigate employment and entrepreneurial opportunities.

PERFORMANCE STANDARDS: EVIDENCE STANDARD IS MET

The student:

- 3.1.A Compares the roles and functions of the various careers available within the aviation industry.
- 3.1.B Evaluates opportunities for advancement in the various aviation career areas.
- 3.2 A Researches and develops a projection of industry trends related to career opportunities.
- 3.2.B Compares career plans for various career paths in the aviation industry.

SAMPLE PERFORMANCE TASKS

- Develop a profile of career opportunities.
- Develop a personal career plan.
- Appraise professional aviation organizations and explain their purposes and the ways they benefit the industry and its professionals.
- Research and present information on key individuals in the aviation industry.
- Incorporate professional terminology into conversation during training activities.

INTEGRATION LINKAGES

Language Arts, Social Studies and Government, History, Computer Skills, Research and Writing Skills, Communications Skills, Teamwork Skills, Leadership Skills, SCANS (Secretary's Commission on Achieving Necessary Skills), PAMA (Professional Aviation Maintenance Association), ATEC (Aviation Technical Education Council), Tennessee Aeronautics Division.

AVIATION MAINTENANCE I

STANDARD 4.0

Students will apply math and basic physics skills to aviation maintenance technology.

LEARNING EXPECTATIONS

The student will:

- 4.1 Demonstrate mathematical skills required for the field of aviation maintenance, including basic skills, algebra skills, and geometry skills.
- 4.2 Examine and apply basic physic concepts to aviation, including principles of simple machines; sound, fluid, and heat dynamics; basic aerodynamics; aircraft structures; and theory of flight.

PERFORMANCE STANDARDS: EVIDENCE STANDARD IS MET:

The student:

- 4.1.A Performs addition, subtraction, multiplication and division of whole numbers, fractions and decimals.
- 4.1.B Extracts roots and raises numbers to a given power. (to proficiency level 3)
- 4.1.C Determines area and volume of various geometric shapes. (to proficiency level 3)
- 4.1.D Solves ratio, proportion and percentage problems. (to proficiency level 3)
- 4.1.E Performs basic algebraic operations involving addition, subtraction, multiplication and division of positive and negative numbers. (to proficiency level 3)
- 4.2.A Analyzes the relationships between: (to proficiency level 2)
 - temperature and heat
 - temperature, pressure, and volume of air mass
 - pressure area and force
- 4.2.B Assesses the factors affecting air pressure on an airfoil. (to proficiency level 2)
- 4.2.C Examines the incline plane, the lever, and the pulley. (to proficiency level 2)
- 4.2.D Explores the origin of sound. (to proficiency level 2)
- 4.2.E Determines the roles of centrifugal and centripetal force. (to proficiency level 2)
- 4.2.F Illustrates and uses the principles of fluid mechanics, simple machines, and aerodynamics. (to proficiency level 2)

SAMPLE PERFORMANCE TASKS

- Select the appropriate mathematical operation to solve a given problem.
- Illustrate the forces and principles involved in aircraft operation.

INTEGRATION LINKAGES

Language Arts, Science, Math, Math for Technology, Computer Skills, Research and Writing Skills, Communications Skills, Teamwork Skills, Leadership Skills, SCANS (Secretary's Commission on Achieving Necessary Skills), Federal Aviation Administration (FAA), PAMA (Professional Aviation Maintenance Association), ATEC (Aviation Technical Education Council), Tennessee Aeronautics Division.

AVIATION MAINTENANCE I

STANDARD 5.0

Students will safely examine basic electrical/electronic circuits.

LEARNING EXPECTATIONS

The student will:

- 5.1 Examine series, parallel and series-parallel circuits, including the application of Ohm's law.
- 5.2 Perform calculations and perform measurements using voltmeters, amp meters, ohmmeters and meggers.

PERFORMANCE STANDARDS: EVIDENCE STANDARD IS MET:

The student:

- 5.1.A Calculates and measures capacitance and inductance. (to proficiency level 2)
- 5.1.B Calculates and measures electrical power. (to proficiency level 2)
- 5.1.C Measures current, voltage, resistance, continuity and leakage. (to proficiency level 3)
- 5.2.A Determines the relationship of voltage, current and resistance in electrical circuits. (to proficiency level 3)
- 5.2.B Reads and interprets electrical circuit diagrams, including solid state devices and logic functions. (to proficiency level 3)
- 5.2.C Inspects and services batteries. (to proficiency level 3)

SAMPLE PERFORMANCE TASKS

- Given a circuit calculate: amps, watts, voltage, resistance, capacitance, or inductance.
- Use a multimeter to measure different values in a circuit.
- Read and interpret aircraft electrical circuit diagrams.
- Determine the relationship of voltage, current and resistance in electrical circuits, including solid state devices and logic functions.
- Inspect and service aircraft batteries.

INTEGRATION LINKAGES

Language Arts, Research and Writing Skills, Communications Skills, Teamwork Skills, Leadership Skills, Secretary's Commission on Achieving Necessary Skills (SCANS), PAMA (Professional Aviation Maintenance Association), ATEC (Aviation Technical Education Council), Tennessee Aeronautics Division, Occupational Safety and Health Administration (OSHA), Tennessee Occupational Safety and Health Administration, Environmental Protection Agency SkillsUSA-VICA

AVIATION MAINTENANCE I

STANDARD 6.0

Students will interpret and use drawings symbols, schematic diagrams, blue prints and sketch basic repairs for aviation structures.

LEARNING EXPECTATIONS

The student will:

- 6.1 Interpret aviation drawings, blueprints, symbols, and schematic diagrams.
- 6.2 Use and create diagrams and drawings for repairs and alterations.

PERFORMANCE STANDARDS: EVIDENCE STANDARD IS MET:

The student:

- 6.1.A Uses aircraft drawings, symbols and schematic diagrams. (to proficiency level 2)
- 6.1.B Uses blueprint information. (to proficiency level 3)
- 6.2.A Draws sketches of repairs and alterations. (to proficiency level 3)
- 6.2.B Uses graphs and charts. (to proficiency level 3)

SAMPLE PERFORMANCE TASKS

- Draw isometric, perspective, and orthoscopic views of a given object.
- Draw a structural repair.
- Read a blueprint.
- Properly use charts and graphs, i.e. wiring chart, horsepower chart.

INTEGRATION LINKAGES

Language Arts, Research and Writing Skills, Communications Skills, Teamwork Skills, Leadership Skills, Secretary's Commission on Achieving Necessary Skills (SCANS), PAMA (Professional Aviation Maintenance Association), ATEC (Aviation Technical Education Council), Tennessee Aeronautics Division, Occupational Safety and Health Administration (OSHA), Tennessee Occupational Safety and Health Administration, Environmental Protection Agency SkillsUSA-VICA

AVIATION MAINTENANCE I

STANDARD 7.0

Student will weigh aircraft and work with fluid lines and fittings.

LEARNING EXPECTATIONS

The student will:

- 7.1 Analyze the importance of aircraft weight and balance and calculate and record weighing information.
- 7.2 Fabricate and install rigid and flexible fluid lines and fittings.

PERFORMANCE STANDARDS: EVIDENCE STANDARD IS MET:

The student:

- 7.1.A Weighs aircraft. (to proficiency level 2)
- 7.1.B Performs complete weight and balance check and records data. (to proficiency level 3)
- 7.2.A Fabricates rigid and flexible fluid lines and fittings. (to proficiency level 3)
- 7.2.B Installs rigid and flexible fluid lines and fittings. (to proficiency level 3)

SAMPLE PERFORMANCE TASKS

- Prepare aircraft for weighing, observing safety precautions. Weigh aircraft.
- Compute moment, arms and empty weight center of gravity as well as forward and aft center of gravity limits for a specific aircraft.
- Complete weight and balance check and record data.
- Manufacture and install a rigid line.
- Manufacture and install a flexible line.
- Demonstrate hand bending, single and double flaring, beading and filing.

INTEGRATION LINKAGES

Language Arts, Research and Writing Skills, Communications Skills, Teamwork Skills, Leadership Skills, Secretary's Commission on Achieving Necessary Skills (SCANS), PAMA (Professional Aviation Maintenance Association), ATEC (Aviation Technical Education Council), Tennessee Aeronautics Division, Occupational Safety and Health Administration (OSHA), Tennessee Occupational Safety and Health Administration, Environmental Protection Agency SkillsUSA-VICA

AVIATION MAINTENANCE I

STANDARD 8.0

Students will analyze aircraft materials use and care and ground operations procedures.

LEARNING EXPECTATIONS

The student will:

- 8.1 Examine the use and care of various covering materials, finishes, and wood structures including approved methods and procedures.
- 8.2 Analyze ground operation and servicing.
- 8.3 Demonstrate proper procedures for aircraft cleaning and corrosion control.

PERFORMANCE STANDARDS: EVIDENCE STANDARD IS MET:

The student:

- 8.1.A Selects appropriate nondestructive testing methods. (to proficiency level 1)
- 8.1.B Performs dye penetrant, eddy current, ultrasonic, and magnetic particle inspections. (to proficiency level 2)
- 8.1.C Performs basic heat-treating processes. (to proficiency level 1)
- 8.1.D Distinguishes and selects aircraft hardware and materials. (to proficiency level 3)
- 8.1.E Inspects and checks welds. (to proficiency level 3)
- 8.1.F Performs precision measurements. (to proficiency level 3)
- 8.2.A Starts, ground operates, moves, services, and secures aircraft and identifies typical ground operation hazards. (to proficiency level 2)
- 8.2.B Distinguishes and selects fuels. (to proficiency level 2)
- 8.3.A Distinguishes and selects cleaning materials. (to proficiency level 3)
- 8.3.B Inspects, identifies, removes, and treats aircraft corrosion and performs aircraft cleaning. (to proficiency level 3)

SAMPLE PERFORMANCE TASKS

- Select the appropriate cleaning materials for a given task.
- Recognize and treat aircraft corrosion.

INTEGRATION LINKAGES

Language Arts, Research and Writing Skills, Communications Skills, Teamwork Skills, Leadership Skills, Secretary's Commission on Achieving Necessary Skills (SCANS), PAMA (Professional Aviation Maintenance Association), ATEC (Aviation Technical Education Council), Tennessee Aeronautics Division, Occupational Safety and Health Administration (OSHA), Tennessee Occupational Safety and Health Administration, Environmental Protection Agency(EPA), SkillsUSA-VICA

AVIATION MAINTENANCE I

STANDARD 9.0

Students will analyze Federal Aviation Administration (FAA) regulations that govern certified Aircraft Technicians and use required maintenance forms, records, and relevant publications.

LEARNING EXPECTATIONS

The student will:

- 9.1 Interpret Federal Aviation Administration (FAA) regulations affecting aircraft maintenance technicians.
- 9.2 Access and use aircraft manufacturers' publications and complete forms and records.

PERFORMANCE STANDARDS: EVIDENCE STANDARD IS MET

The student:

- 9.1.A Accesses relevant Federal Aviation Administration (FAA) regulations.
- 9.1.B Interprets the exercise of mechanic privileges within prescribed limitations. (to proficiency level 3)
- 9.2.A Writes descriptions of work performed including aircraft discrepancies and corrective actions using typical aircraft maintenance records. (to proficiency level 3)
- 9.2.B Completes required maintenance forms, records, and inspection reports. (to proficiency level 3)
- 9.2.C Reads, comprehends, and applies information contained in Federal Aviation Administration (FAA) and manufacturers' aircraft maintenance specifications, data sheets, manual, publications, and related Federal Aviation regulations, Airworthiness Directives, and Advisory material. (to proficiency level 3)
- 9.2.D Reads technical data. (to proficiency level 3)

SAMPLE PERFORMANCE TASKS

- Detail the issuance, duration, experience, and limitations of maintenance technician certificates.
- Select and use technical standard orders.
- Select the appropriate manual to locate information needed for a given task.

INTEGRATION LINKAGES

Language Arts, Research and Writing Skills, Communications Skills, Teamwork Skills, Leadership Skills, Secretary's Commission on Achieving Necessary Skills (SCANS), PAMA (Professional Aviation Maintenance Association), ATEC (Aviation Technical Education Council), Tennessee Aeronautics Division, Occupational Safety and Health Administration (OSHA), Tennessee Occupational Safety and Health Administration, Environmental Protection Agency SkillsUSA-VICA

AVIATION MAINTENANCE I

STANDARD 10.0

Students will demonstrate communication skills required in the aviation maintenance service industry.

LEARNING EXPECTATIONS

The student will:

- 10.1 Communicate and comprehend oral and written information typically occurring in the aviation maintenance workplace.
- 10.2 Solve problems and make decisions using a logical process.
- 10.3 Use teamwork skills to accomplish goals, solve problems, and manage conflict within groups.

PERFORMANCE STANDARDS: EVIDENCE STANDARD IS MET

The student:

- 10.1.A Uses electronic resources to obtain, collect, and process information.
- 10.1.B Analyzes information obtained from various sources to determine action.
- 10.1.C Communicates clearly and appropriately in oral and written form.
- 10.2.A Develops a hypothesis regarding the cause of a problem.
- 10.2.B Tests the hypothesis to determine the solution to the problem.
- 10.2.C Creates, evaluates, and revises as needed a plan to resolve a problem.
- 10.3.A Serves in each of the functional roles of a team.
- 10.3.B Resolves conflicts within a group.
- 10.3.C Demonstrates appropriate and positive examples of giving and accepting criticism.
- 10.3.D Modifies behavior or revises work based on appropriate criticism.
- 10.3.E Solves problems in cooperation with other members of a group.
- 10.3.F Evaluates the role of the aviation maintenance technician within the organizational system of an aviation employer.

SAMPLE PERFORMANCE TASKS

- Present oral or written report on information gleaned from Internet research.
- Use reference materials to determine procedures for an assigned task.
- Work as a team member to develop a strategy for completing an assigned task.
- Use blueprints and diagrams to execute a task.

INTEGRATION LINKAGES

Language Arts, Research and Writing Skills, Communications Skills, Teamwork Skills, Leadership Skills, Secretary's Commission on Achieving Necessary Skills (SCANS), PAMA (Professional Aviation Maintenance Association), ATEC (Aviation Technical Education Council), Tennessee Aeronautics Division, Occupational Safety and Health Administration (OSHA), Tennessee Occupational Safety and Health Administration, Environmental Protection Agency SkillsUSA-VICA

AVIATION MAINTENANCE I

STANDARD 11.0

Students will demonstrate interpersonal and employability skills required in the aviation maintenance industry.

LEARNING EXPECTATIONS

The student will:

- 11.1 Infer relationships between work ethics and organizational and personal job success.
- 11.2 Demonstrate attitudes conducive to workplace success.
- 11.3 Maintain a neat and orderly work area.
- 11.4 Assess implications of diversity for communities and workplaces.
- 11.5 Exhibit positive employability behaviors.
- 11.6 Develop individual time management and work sequencing skills.

PERFORMANCE STANDARDS: EVIDENCE STANDARD IS MET

The student:

- 11.1.A Illustrates the concept of a “work ethic.”
- 11.1.B Assesses the potential impact of an individual’s work ethic on an organizational system.
- 11.1.C Infers the relationship between work ethics and personal job success.
- 11.2.A Judges which attitudes are conducive to success.
- 11.2.B Modifies behavior to reflect attitudes for success.
- 11.3.A Keeps work area organized and free from clutter.
- 11.3.B Cleans work area according to shop standard.
- 11.3.C Deduces the correlation between a clean orderly work environment and successful and efficient job performance.
- 11.4.A Points out benefits and problems that may arise from diversity in the workplace.
- 11.4.B Devises solutions to problems arising from diversity.
- 11.5.A Demonstrates proper dress for work in an aviation maintenance facility.
- 11.5.B Demonstrates appropriate grooming for work in aviation maintenance facility.
- 11.6.A Assesses the benefits of incorporating time management principles into work in aviation maintenance industry.
- 11.6.B Displays time management and work sequencing skills in class assignments.

SAMPLE PERFORMANCE TASKS

- Maintain an orderly work area.
- Lead a problem-solving team.
- Consistently arrive at class on time.
- Participate in an internship.
- Resolve an interpersonal conflict in the classroom.

INTEGRATION LINKAGES

Language Arts, Research and Writing Skills, Communications Skills, Teamwork Skills, Leadership Skills, Secretary's Commission on Achieving Necessary Skills (SCANS), PAMA (Professional Aviation Maintenance Association), ATEC (Aviation Technical Education Council), Tennessee Aeronautics Division, Occupational Safety and Health Administration (OSHA), Tennessee Occupational Safety and Health Administration, Environmental Protection Agency SkillsUSA-VICA

AVIATION MAINTENANCE I

STANDARD 12.0

Students will demonstrate aviation technology safety practices, including Occupational Safety and Health Administration (OSHA) and Environmental Protection Agency (EPA) requirements for an aviation maintenance facility.

LEARNING EXPECTATIONS

The student will:

- 12.1 Determine the safe and correct application for chemicals used in brake systems.
- 12.2 Use protective clothing and safety equipment.
- 12.3 Use fire protection equipment.
- 12.4 Follow OSHA and EPA regulations and manufacturer specifications affecting brake systems technology.
- 12.5 Respond to safety communications referring to brake systems.

PERFORMANCE STANDARDS: EVIDENCE STANDARD IS MET

The student:

- 2.1.A Conforms to federal, state, and local regulations and manufacturers specifications when handling, storing, and disposing of chemicals.
- 12.1.B Ensures proper ventilation for chemical use.
- 12.1.C Inspects first aid supplies.
- 12.2.A Demonstrates proper usage of special safety equipment.
- 12.2.B Selects and uses the appropriate protective clothing and eye protection.
- 12.3.A Distinguishes the proper fire extinguisher for each class of fire.
- 12.3.B Inspects fire extinguishers and determines their effectiveness.
- 12.4.A Locates regulatory information and manufacturer recalls.
- 12.4.B Extracts information from Material Safety Data Sheets pertaining to shop chemicals.
- 12.4.C Complies with relevant regulations and standards.
- 12.4.D Passes a written safety examination with 100% accuracy relating specifically to *Aviation Maintenance I* knowledge and skills.
- 12.4.E Passes a performance examination on equipment with 100% accuracy relating specifically to *Aviation Maintenance I*.
- 12.4.F Maintains a portfolio record of written safety examinations and equipment examinations for which the student has passed an operational checkout by the instructor.
- 12.5.A Interprets brake systems manufacturer correspondence for safety regulations.
- 12.5.B Complies with safety procedures.

SAMPLE PERFORMANCE TASKS

- Assess the work area for safety hazards.
- Design a corrections program for identified hazards.
- Model the appropriate protective equipment for an assigned task.

INTEGRATION LINKAGES

Language Arts, Research and Writing Skills, Communications Skills, Teamwork Skills, Leadership Skills, Secretary's Commission on Achieving Necessary Skills (SCANS), PAMA (Professional Aviation Maintenance Association), ATEC (Aviation Technical Education Council), Tennessee Aeronautics Division, Occupational Safety and Health Administration (OSHA), Tennessee Occupational Safety and Health Administration, Environmental Protection Agency SkillsUSA-VICA

SAMPLING OF AVAILABLE RESOURCES

14 CFR - Chapter I - Part 147, Code of Federal Regulations

Aviation Maintenance Technician Series – General, Aviation Supplies & Academics, April 2000

Aviation Mechanic Handbook, Aviation Supplies & Academics, September 2001

Aviation Educational Multimedia Library, Aviation Technician Education Council (ATEC), www.atec-amt.org